



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/432,113	11/02/1999	NOBUHIRO SAITOU	826.1570/JDH	9639
21171	7590	12/16/2003		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER HARRISON, CHANTE E				
ART UNIT		PAPER NUMBER		
2672		17		

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/432,113

**Applicant(s)**

SAITOU, NOBUHIRO

**Examiner**

Chante Harrison

**Art Unit**

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is responsive to communications: Amendment D, filed on 5/7/03 and RCE filed 6/23/03.

2. Claims 1-17 are pending in the case. Claims 1, 5, 8-17 and 19 are independent claims. Claims 1, 5, 8, 9, 10, 11, 12 and 14 have been amended.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 5, 7, 10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jean Camacho et al., U.S. Patent 5,278,951.

As per independent claim 5, Camacho discloses a user designating an area on the screen and the designated area overlaps the first connector (col. 6, ll. 24-45) and overlaps a portion of the display that is separate from the graph (col. 4, ll. 18-22; Fig. 3) and creating new connectors when the first connector is selected (col. 6, ll. 30-36; col. 15, ll. 27-35). The rejection as applied to independent claim 1 is included herein.

As per dependent claim 7, Camacho discloses a virtual coordinate system in which each box displays one object (FIG. 2) and displaying each object in the coordinate system (col. 2, ll. 20-25) and locating each object using the coordinate system (col. 7, ll. 55-65).

As per independent claim 10, Camacho discloses a method implemented in the apparatus of claim 5. Therefore the rejection as applied to independent claim 5 is included herein.

As per independent claim 12, Camacho discloses a medium (col. 1, ll. 55-67) for implementing the method of claim 10. Therefore the rejection as applied to claim 10 is included herein.

Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Tichomir Tenev et al., U.S. Patent 6,377,259.

As per independent claim 19, Tenev discloses displaying a graph (Fig. 1), dragging a node to change a location of the node (col. 10, ll. 14-18) and in response to automatically determining that the location of the node is in proximity to a connector of an existing node in the graph (col. 10, ll. 30-35) automatically displaying a new graph connector connecting the node the existing node (col. 10, ll. 34-36, 46-49).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jean Camacho et al., U.S. Patent 5,278,951.

As per dependent claim 6, Camacho discloses shifting the second object and displaying the third in a position where the second was displayed (col. 15, ll. 30-45; Fig. 8 & 9 "H3"). Although Camacho fails to disclose performing this step before the first connector was selected (col. 6, ll. 30-40), it would have been obvious to one of skill in the art to shift the objects and insert the new object before selecting the link to be modified because Camacho selects the portion of the graph to be modified, executes the layout of the graph and reconnects the objects with modified links.

Claims 1-4, 8-9, 11, 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jean Camacho et al., U.S. Patent 5,278,951 and further in view of Tichomir Tenev et al., U.S. Patent 6,377,259.

As per independent claim 1, Camacho discloses displaying a first and second object connected with a first connector (FIG. 1), the objects and the connector displayed on a screen (abstract; col. 2, ll. 20-25), an interactive editing unit (col. 6, ll. 30-40) automatically creating both a second connector to connect the first and third object and a third connector connecting the third and second objects when a third object is in a predetermined position relative to the first connector (col. 15, ll. 30-45; Fig. 9).

As per dependent claim 2, Camacho discloses creating the second and third connectors when the first connector and the third object overlap (col. 16-17, ll. 45-20).

As per dependent claim 3, Camacho discloses judging whether a distance between the first and second objects will accommodate a third object and shifting one of the objects if the distance is insufficient (col. 14, ll. 55-65; col. 15, ll. 20-41).

As per dependent claim 4, Camacho discloses making the third object depend from the first and the second depend from the third if the second object depended from the first before the third object was inserted (Fig. 8 & 9 "H3").

As per independent claim 8, Camacho discloses displaying a plurality of second object connected to the first object (Fig. 2) and interactively (col. 6, ll. 32-35) and collectively (col. 2, ll. 63-65) selecting a plurality of connectors (Fig. 10). The rejection as applied to claim 1 is included herein.

As per independent claim 9, Camacho discloses a method implemented in the apparatus of claim 1. Therefore the rejection as applied to claim 1 is included herein.

As per independent claim 11, Camacho discloses a medium (col. 1, ll. 55-67) for implementing the method of claim 9. Therefore the rejection as applied to claim 9 is included herein.

As per independent claim 13, Camacho discloses determining a first connection by comparing a position of the input device (col. 6, ll. 30-40), the first connection connecting a first and second displayed node (Fig. 1), inserting a node by creating a connection between the inserted node and the first node and another connection connecting the inserted node and the second node (Fig. 8 & 9 "H3"; col. 15, ll. 20-40). Camacho fails to specifically disclose an object moved by the input device, which Tenev discloses (col. 10, ll. 15-18, 45-48). Camacho teaches performing node insertion/deletion by shifting elements using x/y and row/column coordinates. Tenev teaches processing a dragging event, which moves elements (i.e. nodes/links) by an input gesture or signal and identifies node position to modify the displayed graph (i.e.



node link structure) layout. It would have been obvious to one of skill in the art to include an object moved by the input device as taught by Tenev with the disclosure of Camacho because Camacho teaches performing an insertion/deletion operation upon a user checking (i.e. selecting) the operation and the element to be processed.

As per independent claim 14, Camacho discloses an apparatus (col. 1, ll. 55-67; col. 6, ll. 30-40). The rationale as applied to claim 1 above is applied herein.

As per independent claim 15, Camacho discloses a user interface for inserting a new node between edge connected nodes (col. 6, ll. 30-40; Fig. 8 & 9), automatically displaying new lines (col. 17, ll. 1-6), automatically undisplaying a line from the graph (Fig. 8 & 9), the displaying and undisplaying reflect changes to edges of the graph (Fig. 8 & 9). Camacho fails to disclose inserting a node by dragging the node over or near a line connecting the existing nodes and dropping the node onto or near the line, which Tenev discloses (col. 10, ll. 4-8, ll. 15-18). Camacho teaches the user selecting an element via input device and modifying the displayed tree structure after detecting the selected element and its including structure. Tenev teaches user selection of an element to be modified via a dragging event that is indicated by an appropriate gesture (i.e. 2D movement) or other signal. It would have been obvious to one of skill in the art to include the insertion of nodes by one of dragging or dropping in the disclosure of Camacho to increase user control of the editing process via manipulation of an input device.

As per independent claim 16, Camacho discloses storing a graph structure... (col. 1, ll. 55-67), displaying nodes (Fig. 1), displaying links connecting nodes (Fig. 1), adding a new node after displaying the structure (col. 2, ll. 20-25; col. 6, ll. 30-40), interactively selecting the displayed line (col. 6, ll. 30-40), adding to the graph structure new relationship data (col. 2, ll. 20-25), inserting a node by creating a connection between the inserted node and the first node and another connection connecting the inserted node and the second node (Fig. 8 & 9 "H3"; col. 15, ll. 20-40). The rationale as applied to above claim 15 is applied herein.

As per independent claim 17, Camacho discloses storing a graph structure comprising node variables and information logically interrelating the node variables (col. 1, ll. 55-65; Fig. 1), displaying graphical nodes and lines connecting the nodes (col. 2, ll. 20-25; col. 3, ll. 55-60; Fig. 2), where a new node is unrelated to any other node variables and the new node corresponds to a third graphical node (Fig. 6), graphical nodes correspond to node variables and graphical lines correspond to information logically relating the node variables (col. 2, ll. 14-25; col. 15, ll. 15-45), selecting a first line connecting a first and second node and representative of information relating the first and second node (col. 6, ll. 30-40) . The rationale as applied to claim 15 is applied herein.

As per dependent claim 18, Camacho discloses interactively selecting the first connector (col. 6, ll. 25-45). Camacho fails to disclose inserting a node by dragging the node over or near a line connecting the existing nodes and dropping the node onto or near the line, which Tenev discloses (col. 10, ll. 4-8, 15-18). Camacho teaches the user selecting an element via input device and modifying the displayed tree structure after detecting the selected element and its including structure. Tenev teaches user selection of an element to be modified via a dragging event that is indicated by an appropriate gesture (i.e. 2D movement) or other signal. It would have been obvious to one of skill in the art to include the insertion of nodes by one of dragging or dropping in the disclosure of Camacho to increase user control of the editing process via manipulation of an input device.

***Response to Arguments***

1. Applicant's arguments filed 5/7/03 have been fully considered but they are not persuasive.

Regarding claims 1, 8-9, 11, 13-14, Applicant argues (pp. 6) Camacho does not teach moving objects (i.e. connectors/links/nodes) by an interactive two dimensional movement.

Camacho teaches shifting the branches of the graph by checking (i.e. selecting) the operation and the element (i.e. node/link) (col. 6, ll. 30-36), where elements have associated x/y data (col. 4, ll. 18-22; col. 6, ll. 20-24).

Regarding claims 5, 10 and 12, Applicant argues (pp. 6-7) Camacho does not teach selecting an area.

Camacho teaches displaying elements (i.e. branch having nodes and links) in a graph (col. 2, ll. 10-15, 18-20, 63-64), where a branch is represented by an area defined by the graph row/column coordinates and the branch x/y data (col. 4, ll. 18-22).

2. Applicant's arguments with respect to claims 15-19 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Chante Harrison whose telephone number is (703) 305-3937.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (703) 305-4713.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ch

December 4, 2003



**MICHAEL RAZAVI**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600